

CAMEO Response Information, Version 2.0, June 1987
NOAA, 7600 Sand Point Way NE, Seattle, WA 98115 (206) 526-6317

NAME:

HYDROFLUORIC ACID SOLUTION

CAS Registry Number: 7664393

Label: CORROSIVE MATERIAL

UN/NA: 1790

NFPA Ratings : Health: 4 Flam: 0 React: 0 Spec:

GENERAL DESCRIPTION:

Hydrofluoric acid solution is a colorless fuming liquid with a pungent odor. It is soluble in water with release of heat. It is corrosive to metals and tissue. The fumes and very short contact with small quantities of the liquid can cause severe painful burns. ((C)AAR, 1986)

FIRE & EXPLOSIVE HAZARD:

Not flammable. Flammable gas may be produced on contact with metals. Toxic and irritating vapors are generated when heated. (USCG, 1985)

FIRE FIGHTING:

Extinguish fire using agent suitable for type of surrounding fire (material itself does not burn or burns with difficulty). Use water in flooding quantities as fog. Cool all affected containers with flooding quantities of water. Apply water from as far a distance as possible. ((C)AAR, 1986)

PROTECTIVE CLOTHING:

Avoid breathing vapors. Keep upwind. Wear self-contained breathing apparatus. Avoid bodily contact with the material. Wear boots, protective gloves, and goggles. Do not handle broken packages without protective equipment. Wash away any material which may have contacted the body with copious amounts of water or soap and water. If contact with the material anticipated, wear full protective clothing. ((C)AAR, 1986)

SUIT MATERIAL COMPATIBILITY (Based on ACGIH, 1985):

BUTYL
CHLOROBUTYL
COPOLYMER RUB

CR 39
EVA/PE
FEP OR TFE
HYPALON

NBR Good Resistance/Limited Data.
NEOPRENE Good Resistance/Good Data.

NEO/SBR	Good Resistance/Good Data.
NITRILE	Good Resistance/Good Data.
NITRILE/PVC	Poor Resistance/Limited Data.
PE	Poor Resistance/Limited Data.
POLYCARB	
PU	
FOA	Poor Resistance/Limited Data.
FOC	Poor Resistance/Limited Data.
RUBBER	Good Resistance/Good Data.
RUB/NEO/NBR	
RUB/NEO/SBR	
SARANEX	Poor Resistance/Limited Data.
SBR	Good Resistance/Limited Data.
VITON	Good Resistance/Limited Data.
VITON/NEO	

NONFIRE RESPONSE:

Keep material out of water sources and sewers. Build dikes to contain flow as necessary. Use water spray to knock-down vapors. Neutralize spilled material with crushed limestone, soda ash, or lime. Land spill: Dig a pit, pond, lagoon, holding area to contain liquid or solid material. Dike surface flow using soil, sand bags, foamed polyurethane, or foamed concrete. Absorb bulk liquid with fly ash or cement powder. Neutralize with agricultural lime (slaked lime), crushed limestone, or sodium bicarbonate. Water spill: Neutralize with agricultural lime (slaked lime), crushed limestone, or sodium bicarbonate. Add soda ash. Adjust pH to neutral (pH=7). Use mechanical dredges or lifts to remove immobilized masses of pollutants and precipitates. Air spill: Apply water spray or mist to knock down vapors. Vapor knockdown water is corrosive or toxic and should be diked for containment. ((C)AAR, 1986)

HEALTH HAZARDS:

VAPOR: Will burn eyes, nose and throat. Harmful if inhaled. LIQUID: Will burn skin and eyes. Harmful if swallowed. (USCG, 1985)

FIRST AID:

If this chemical comes in contact with the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately. Contact lenses should not be worn when working with this chemical. If this chemical comes in contact with the skin, immediately flush the contaminated skin with water. If this chemical penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly. If a person breathes in large amounts of this chemical, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Keep the affected person warm and at rest. Get medical attention as soon as possible. If this chemical has been swallowed, get medical attention immediately. (NIOSH, 1987)

FLASH POINT:

Not Applicable. Not flammable. (USCG, 1985)

LOWER EXPLOSIVE LIMIT:

Not Applicable. Not flammable. (USCG, 1985)

UPPER EXPLOSIVE LIMIT:

Not Applicable. Not flammable. (USCG, 1985)

AUTO IGNITION TEMPERATURE:

Not Applicable. Not flammable. (USCG, 1985)

MELTING POINT:
Not Applicable. (USCG, 1985)

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VAPOR PRESSURE:

VAPOR DENSITY (AIR = 1):
Not Applicable. (USCG, 1985)

SPECIFIC GRAVITY-LIQUID (H2O=1):
1.258 @ 77 Deg F (USCG, 1985)

SPECIFIC GRAVITY-SOLID (H2O=1):

BOILING POINT:
152 Deg F @ 760 mm Hg (USCG, 1985)

MOLECULAR WEIGHT:

IDLH:
30 ppm For hydrogen flouride. (NIOSH, 1987)

1 - TIME WEIGHTED AVERAGE:
3 ppm For Hydrogen Fluoride Ceiling limit. ((C)ACGIH, 1986)

TLV - SHORT TERM EXPOSURE LIMIT: